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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,787	07/27/2000	Eugen Uhlmann	02481.1679	1128

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EXAMINER

SCHNIZER, RICHARD A

ART UNIT	PAPER NUMBER
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1635

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/627,787

Applicant(s)

UHLMANN ET AL.

Examiner

Richard Schnizer, Ph. D

Art Unit

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,6,8,9,11-14,16-21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 3-5, 7, 10, 15, 22, and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

An amendment after final rejection was received and entered on 10/18/04.

Claim 1 was canceled as requested.

Previously withdrawn claims 3 and 7 are rejoined.

Claims 2-26 remain pending and are under consideration in this Office Action.

This Action is NON-FINAL due to a new ground of rejection not necessitated by Applicant's amendment.

### ***Rejections Withdrawn***

Applicant's amendments overcome the written description, enablement, and prior art rejections of record.

### ***Claim Objections***

Claim 3 is objected to because "polynucleotides" should be singular, not plural.

Instant claim 9 is objected to because in structure (F4) an oxygen has been omitted that would form a methyl ester to the right of the ring system. See Fig. 2a, or the previous version of claim 9. The result is that (F4) contains 2 separate structures, a fluorescein derivative and propanone, rather than one as in Fig. 2. The missing oxygen should be reinserted to form the ester.

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### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 1635

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 6, 8, 9, 11-14, 16-21, and 24-26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to conjugates comprising a molecule to be transported, and so embrace the genus of "molecules to be transported." The specification discloses that the conjugates are intended to transport molecules into cells. See page 1, lines 1-5. The specification discloses a representative number of species of the genus of biologically active molecules that one may wish to transport into a cell. However, the specification does not disclose a representative number of species of the broader genus of molecules that are to be transported anywhere, without limitation. Because the specification focuses on transport across biological membranes of a cell, and does not contemplate or describe other forms of transport, or molecules for transport other than those with some biological activity, one of skill in the art could not conclude that Applicant was in possession of the genus of conjugates comprising a molecule for transport. This rejection may be overcome by limiting the genus of molecules to be transported to biologically active molecules, or to molecules for transport across a biological membrane.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6, 8, 24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (Macromolecules 23(24): 5044-5058, 1990), as evidenced by Desai et al (US 20040225022, published 1/11/04).

Chen taught the synthesis of thermotropic chiral nematic copolymers. The process involves the use of a starting material meeting the structural limitations of claim 8 wherein R1 is (CH<sub>2</sub>)<sub>5</sub>-O-COC(CH<sub>2</sub>)CH<sub>3</sub>, X and Y are each O, the aryl group is a phenyl group, R3 is a carbonyl, and the group to be transported is a p-oxy-phenyl-methoxy group of molecular weight of 123. See structure (i) in Table 1 on page 5056. This rejection is based upon a broad but reasonable interpretation of the claim in which the group to be transported is considered to be transported to the polymer in the process of polymer formation.

With regard to claim 24, the molecule of Chen is dissolved in tetrahydrofuran which is recognized in the art as a solvent used in pharmaceutical compositions. See page 5055, column 2, second full paragraph of Chen, and claim 27 of Desai which teaches the use of tetrahydrofuran as a solvent in pharmaceutical compositions.

With regard to claim 25, the molecule of Chen can be considered to be a diagnostic

With regard to claim 26, molecules of Table 1 of Chen can be considered to constitute a test kit for determining appropriate polymerization conditions.

Thus Chen anticipates the claims.

### ***Conclusion***

No claim is allowed. Claim is objected to for the reasons set forth above, i.e. claim 3 is ungrammatical. Claims 4, 5, 7, 10, 15, 22, and 23 are objected to because they depend from rejected claims 8 and/or 9. Claims 5 and 7 would be allowable if rewritten in independent form incorporating all of the limitations of claim 8. The same would apply to claim 3 after grammatical correction. Claims 10, 15, 22, and 23 would be allowable if rewritten in independent form incorporating all the limitations of claim 8. Claims 10, 15, 22, and 23 would also be allowable if rewritten in independent form incorporating all the limitations of claim 9, if claim 9 were rewritten to overcome the existing objection to it (i.e. the missing oxygen in (F4)).

Any inquiry concerning this communication or earlier communications from the examiner(s) should be directed to Richard Schnizer, whose telephone number is 571-272-0762. The examiner can normally be reached Monday through Friday between the hours of 6:00 AM and 3:30. The examiner is off on alternate Fridays, but is sometimes in the office anyway.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, John Leguyader, be reached at 571-272-0760. The official central fax


Art Unit: 1635

number is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Richard Schnizer, Ph.D.

  
DAVE TRONG NGUYEN  
PRIMARY EXAMINER